Central Alaska Network Inventory and Monitoring Program Metadata Summary Report — Denali National Park and Preserve



Title Abstract

Air Quality

Interagency Monitoring of Air Quality/Visibility in Protected Environments

Project start date: 1/1/1988 Project end date: 12/2/2002

Contact: Paynter, Jon Format: ASCII

Two days per week sampling of selected aerosols; data for mass, elemental and organic carbon, sulfur dioxide, nitrates, sodium- lead, hydrogen, nitrogen, and promethium mass.

NADP (National Atmospheric Deposition Network) Wet Deposition Data

Project start date: 1/1/1980

Contact: Paynter, Jon

Contact: Paynter, Jon

Project end date: 12/2/2002

Format: ASCII

Weekly precipitation chemistry data; analysis of pH, conductivity, calcium, magnesium, potassium,

sodium, ammonia, nitrates, chlorine, sulfates, and phosphates.

Troposphere Ozone Data

Project start date: 1/1/1987

Project end date: 12/2/2002

Format: dBase, ASCII

Hourly ozone data sampled at 5m above the ground.

Botany

List of Flora for DENA

Project start date: Project end date:

List of Flora at Denali NP&P, NPFLORA

Contact: Paynter, Jon Format:

LTEM - Annual estimates of annual radial growth of selected white spruce trees within the permanent vegetation plots

Project start date: 6/15/1992

Project end date: 9/15/2001

Contact: Roland, Carl

Format: MS Access

Dendrometer bands were installed in 1992 on the same set of trees that were selected for the cone counts. These simple devices are used to measure the expansion of the bole of each selected white spruce tree on an annual basis. Technicians read these dendrometers bands each year in late August or early September in order to determine the total annual growth for the preceding year.

LTEM - Annual estimates of number of cones produced by selected trees within permanent vegetation plots

Project start date: 6/15/1992

Contact: Roland, Carl

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Project end date: 9/15/2001

Format: MS Access

Each August the number of white spruce cones produced by the trees in the permanent monitoring plots are estimated through cone counts performed on a random subset of trees. Technicians use binoculars to count cones on six individual spruce trees in each permanent vegetation monitoring plot in the forest sites. Because there are not six trees in the treeline sites, cone counts are performed on all of the trees that occur within the inner permanent plots in the treeline sites.

Title Abstract LTEM - Annual estimates of white spruce seed rain within the permanent vegetation plots Project start date: 6/15/1992 Project end date: 9/15/2001 We estimate the total white spruce seed rain and number of viable seeds that fall in the forest and treeline vegetation plots by placing a set of six seed traps out each fall, and collecting them in early Contact: Roland, Carl Format: MSAccess spring. White spruce seeds are sorted from litter and counted. These seeds are then subjected to carefully controlled germination trials. The number of seeds that germinate are recorded following these germination trials. LTEM - Berry counts of six species in Rock Creek vegetation plots Project start date: 1/1/1994 Project end date: 1/1/1997 Included as part of the LTEM Vegetation Monitoring Protocol development. Data on berry counts for six species in Rock Creek vegetation study plots since 1994. Contact: Paynter, Jon Format: paper, Access, Excel LTEM - Cover measurements within vegetation plots Project start date: Project end date: The community composition and dominance of the ground level vegetation was recorded by the technicians who installed the plots in 1992-3. The methods used were to estimate the cover of the Contact: Roland, Carl Format: MS Access ground surface for each species in a set of twelve 1 m2 quadrats. Percent cover of the ground surface by shrubs was estimated in four 4 m2 quadrats in each plot.. There are serious problems with the use of this methodology for long term monitoring, relating to the potential for large differences among observers. LTEM - Resource Management Vegetation Various files from Reseanne Densmore's work with LTEM Rock Creek Project start date: Project end date: Contact: Paynter, Jon Format: LTEM - Tree Measurements in Rock Creek Project start date: 6/1/1992 Proiect end date: 9/1/2000 Trees were mapped at the time that the plots were first installed in 1992-3. the location of each individual was recorded as an X.Y coordinate within the center 25 m x 25 m interior plots in the forest Contact: Roland, Carl Format: MS Access and treeline replicates. Each tree was measured for its diameter at breast height and its total height. The species identity and comments regarding condition of each tree were also recorded. Plot maps based on the location of these trees were produced for each plot where trees occurred. Rare Plant Population Inventory Project start date: 1/1/1986 Project end date: 12/2/2002 Field observations were carried out in summer of 1986 by NPS staff to determine if any of the plant species listed on the proposed Threatened and Endangered list (Murray, 1980) could be found in the Contact: Paynter, Jon Format: Kantishna Hills **Road Dust Study** Data of road dust study including 1994-95 vegetation, soil transects data from Roseanne Densmore Project start date: Project end date: and 1996 topographic profiles for Teklanika Flats transects.

Format: dBase

Contact: Paynter, Jon

Title		Abstract
Seed Bank Collection Project start date: 7/10/1995 Contact: Paynter, Jon	Project end date: 7/10/1997 Format: Microsoft Access	Seed Bank Collection made up of mostly grasses and wildflowers stored (in freezer) for future revegetation use.
Species List of Lichen in I	Denali National Park	
Project start date: Contact: Paynter, Jon	Project end date: Format: MS Word	Species list of lichens found in Denali National Park. List compiled from literature search and not through field work.
Climatology		
LTEM - Climate Monitoring Project start date: 1/1/1923 Contact: Sousanes, Pam	Project end date: 12/30/2002 Format: MSAccess	There are currently 14 climate stations in and around Denali National Park and Preserve that are generating data. Twelve of these sites are automated (Seven LTEM Stations, Four Remote Automated Weather Stations-RAWS, and one Air Quality Station) and record hourly readings. Different programs and networks are responsible for the different types of automated stations in the park, but all of the data are archived in the same location as part of LTEM. The data from the three National Weather Service (NWS) manual stations are also archived as part of LTEM.
LTEM - Rock Creek Autom	ated Weather Observations	
Project start date: 1/1/1991 Contact: Sousanes, Pam	Project end date: 12/2/2002 Format: Microsoft Access	Hourly records of weather parameters from automated observation stations located at six sites spanning the elevation gradient of the Rock Creek drainage near Park Headquarters. Project location: Rock Creek drainage
LTEM - Snow Surveys		
Project start date: 1/1/1990 Contact: Sousanes, Pam	Project end date: 9/2/2002 Format: Paper	In cooperation with the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS), snow data were collected on a monthly basis at Denali National Park and Preserve from November through April at thirteen sites in and around the park. Six of these sites are snow courses, requiring ground measurements, and seven are aerial markers. The information collected for the snow surveys includes snow depth, length of snow core, and sample weight. Snow density and snow water equivalent (SWE) are calculated from the collected data. Aerial surveys are conducted for sites that have no appropriate fixed wing landing area nearby. For the aerial surveys the snow depth is recorded and density is calculated using data from the nearest site.
Meteorological Data for Tro	oposphere Ozone Study	
Project start date: 1/1/1987 Contact: Paynter, Jon	Project end date: 12/2/2002 Format: dBase, ASCII	Hourly data for wind speed, wind direction, solar radiation, temperature, dew point, relative humidity, precipitation.

Title Abstract

Remote Automated Weather Stations Observations (RAWS)

Project start date: 1/1/1991

Project end date: 9/2/2002

Contact: Sousanes, Pam

Format: MSAccess

Hourly weather observations telemetered via satellite to a national receiving center and archived at various locations for fire weather monitoring and climatology. Site locations: Wonder Lake, McKinley

River, Lake Minchumina, Tokositna River.

Entomology

Gypsy Moth Monitoring Program

Project start date:

Contact: Paynter, Jon

Project end date: Format: Paper

In conjunction with a gypsy moth monitoring program pheromone traps were set up in two RV campgrounds and in the gravel parking area north of Lynx Creek. No gypsy moths were recoved. Project conducted during Summer 1993. Project locations are: Denali NP&P- Teklanika and Riley Creek campgrounds. Outside Denali NP&P- gravel parking area north of Lynx creek

LTEM - Development of Terrestrial Invertebrate Monitoring Protocol

Project start date: 6/8/1992

Contact: Paynter, Jon

Project end date: 6/8/1993

Format: Paper

The purpose of this study was to monitor terrestrial insect populations and their effects on vegetation while keeping the study plan compatible with studies currently being conducted worldwide in Boreal

ecosystems.

Environmental Monitoring

Road Dust Collected per Suppression Test Section

Project start date: 6/8/1996

Contact: Paynter, Jon Format:

Project end date: 8/16/1996

Water filled pans collected dust generated on test sections of road, before and after treatment with calcium chloride and "Road Oyl".

Fire

Fire Effects Monitoring System

Project start date: 1/1/1956

Project end date: 9/30/2002

Contact: Paynter, Jon

Format: Paper

Proposal was to monitor permanent vegetation cover sampling plots in DENA that were affected by fire in order to understand the fire-free interval for specific areas, fire intensity for fuel types, effects on soils and succession stage variation related to fuel types.

Fire History

Project start date: 1/1/1956 Contact: Paynter, Jon

Project end date: 9/30/2002 Format: paper, dBase, ASCII

Point locations for fires in Denali NP and P from 1956 to present with connecting table listing fire number, name, date and size in acres.

Fire Protection Boundary

Project start date: 1/1/1983

Contact: Paynter, Jon

Project end date: 9/30/2002

Format: dBase

GIS locations of fire suppression zones (developed areas that have different limits of suppression protection) throughout Denali National Park and Preserve.

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Title		Abstract
Fuel Sampling		
Project start date:	Project end date:	Fuel samples taken to validate Canadian Fire Danger Rating System using Minchumina RAWS
Contact: Paynter, Jon	Format:	
Glaciology		
LTEM - Glacier Monitoring	g	
Project start date: 1/1/1991 Contact: Brease, Philip	Project end date: 12/2/2002 Format: MSAccess	Field observations of glacier conditions at selected locations within Denali NP&P for monitoring of changes and determination of their relation to climate. Project location: glaciated regions of Denali NP&P.
History		
Letters and Photos from	Charlie Ott	
Project start date:	Project end date:	Letters exchanged with Charlie Ott with responses to specific questions. Charlie -NPS employee,
Contact: Paynter, Jon	Format: paper, letters, negatives b/w photos	professional photographer McKinley area 1954-1980s. Tramped with Adolf Murie. Gave park black and white photos and negatives for NPS files.
Oral Interview of Beatrice	Herning	
Project start date:	Project end date:	One hour audio tape, CCC camp 1938-39, husband Harold Herning was NPS ranger, he built Herning
Contact: Paynter, Jon	Format: audio tape, paper	cabin and had a mining claim on Mt Eielson. Excerpts supt.'s monthly reports, information on mining claims and cabin.
Oral Interview of Bill Nan	carrow	
Project start date:	Project end date:	10 hours of audio tape. An area resident and long-time NPS employee in various capacities, 1948 to
Contact: Paynter, Jon	Format: audio tape	present. Focus is history of his life and local events, with more details about local people and natural history.
Oral Interview of Denise	Abbey	
Project start date:	Project end date:	Oral interview, notes only. Denise's father, Woodbury Abbey, was Chief Surveyor on original park
Contact: Paynter, Jon	Format: paper - notes	boundary. As a child Denise lived at McKinley Station in early 1920s, attended school, and traveled throughout the park with her family in 1922.
Oral Interview of Jessie N	<i>l</i> lurray	
Project start date:	Project end date:	30 minute audio tape. Ninety-one year old Montana lady who was a visitor to Savage River Tourist
Contact: Paynter, Jon	Format: audio tape, photos	Camp in 1928. Interview has been transcribed. Photo album with photos of Savage Camp, Curry Hotel, University of Alaska buildings.

Title Abstract **Oral Interview of Louise Gallop** Two hours of audio tape. Owner of Discovery Claim on Friday Creek, purchased claim 1967, sold Project start date: Project end date: claim along with cabin to NPS in 1995. Focuses on her claim and operations there. 1997 photo of Contact: Paynter, Jon Format: audio tape, photos Louise at Friday Creek and Gallop cabin. **Oral Interview of Mary Tallman Lee** Project start date: Proiect end date: 45 minute audio tape. Mary Tallman Lee was CAA radio operator at Summit, 1941-44, 1997 photo of Mary. Contact: Paynter, Jon Format: audio tape, photos **Oral Interview of Ted Lachelt** Proiect start date: Proiect end date: 30 minute audio tape. Ted Lachelt 1950-59 built Eagles' Nest cabin, Kantishna. In 1953 he snowshoed some 1,000 miles in park surveying for wolverine, in 1954 he worked as NPS naturalist, Contact: Paynter, Jon Format: audio tape, notes, 1 photo laborer. Later he was a civil engineer for Eielson Visitor Center. **Hydrology (Surface)** LTEM - Surface Hydrology Data Project start date: 1/1/1992 Project end date: 1/1/1997 Data describing stream channel morphometry and surface water hydrology: Cross sections, slope, bed material, and stage data. Related LTEM data: water chemistry, aquatic macroinvertebrates. Contact: Paynter, Jon Format: **Invertebrates** LTEM - Aquatic Invertebrates Project start date: 1/1/1992 Project end date: 1/1/2002 This portion of the LTEM program studied macroinvertebrate communities in a single watershed - Rock Creek, then expanded the work to more of the park to develop a broader understanding of the river and Contact: Oakley, Karen Format: MSExcel streams and their macroinvertebrate communities, and finally continued to monitor macroinvertebrate communities at a number of sites along the park road established earlier to describe natural patterns of variation. **Mammalogy** List of Fauna for DENA Project start date: Project end date: List of fauna at Denali NP and Preserve Contact: Paynter, Jon Format:

Title Abstract

LTEM - Small Mammal Monitoring

Project start date: 1/1/1992

Project end date: 12/1/1998

Contact: Rexstad, Eric Format: msAccess

Establish sampling protocol for long term monitoring comparable to other small mammal studies in Arctic regions. Determine density estimates in riparian and forest habitats Rock Creek. Document presence of dark morph Clethrionomys rutilus.

Small Mammal Inventory in Park Road Corridor and at 1956 Viereck Study Plots

Project start date:

Contact: Paynter, Jon

Project end date: Format: Paper Preliminary surveys along road corridor locating areas of promising vegtative and faunal characterisation for future sites for small mammal monitoring plots. Locations identified: McKinley Bar.

Moose Creek, Toklat, Teklanika drainages.

Management/Administration

Cultural Resource Management Assessment Program (CRMAP)

Project start date: 1/1/1996

Contact: Paynter, Jon

Project end date: 12/2/2002

Format: Paper

CRMAP is a process used to identify staffing deficiencies. Extensive data regarding park cultural resources was collected and entered into a program that calculated types of jobs and numbers of

people required.

DENA Backcountry Campsite database

Project start date:

Project end date:

Contact: Van Horn, Joe

Format:

Resource Management Assessment Program (RMAP)

Project start date: 1/1/1993

Project end date: 11/15/2002

Contact: Paynter, Jon

Format: Paper

RMAP is a process used to identify staffing deficiencies. Extensive data on park resources (e.g., miles of roads, trails, numbers of threatened species) was collected, and entered into a program that

calculated types of jobs and numbers of people required.

Resource Management Plan (RMP)

Project start date: 1/1/1994

Contact: Paynter, Jon

Project end date: 9/30/2002

Format:

Document that discusses current park resource management issues and concerns, future actions,

funding, past accomplishments.

Ornithology

Breeding Bird Survey

Project start date: 1/1/1986

Project end date: 9/30/2002

Contact: Paynter, Jon Format: Paper

Avian point counts are conducted along two routes on the park road (Savage, Toklat). Stops are 1/2

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mile apart, count for 3 minutes and record number of each species seen or heard.

Title		Abstract
Christmas Bird Count		
Project start date: 1/1/1967	Project end date: 9/30/2002	In one day all birds seen or heard are recorded by species and count while birdwatching (walking,
Contact: Paynter, Jon	Format: Paper	skiing, driving, etc) along with number of participants and miles surveyed.
LTEM - Monitoring Avian P	roductivity and Survivorship (MAPS)
Project start date: 19910101	Project end date: 20021202	Birds are captured in mist nets. Data collected include species identification, extent of juvenile
Contact: McIntyre, Carol	Format: MSAccess	plumage, wing length, weight, molt.
LTEM - Monitoring Reprod	uctive Performance of Golden	Eagles and Gyrfalcons
Project start date: 1/1/1988	Project end date: 9/30/2003	This monitoring program started in 1988, four years before the initiation of the Denali Long Term
Contact: McIntyre, Carol	Format: MSExcel	Ecological Monitoring Program (Denali LTEM). The initial goal of the monitoring program was to determine the abundance and distribution and describe the population ecology of both species. The project was funded by the Denali NP LTEM program beginning in 2000.
		project was funded by the Denair Nr. ETEIN program beginning in 2000.
LTEM - On and Off Road Po	oint Counts (ABO)	
Project start date: 19920601	Project end date: 20010930	Avian point counts are conducted on road (stop every 1/2 mi. and count for 3 minutes) and off road (points 250 meters apart and count for 5 minutes) to determine species abundance during breeding
Contact: McIntyre, Carol	Format: MSAccess	(points 250 meters apart and count for 5 minutes) to determine species abundance during breeding season.
LTEM - Spatial and Tempor	ral Changes in Passerine Distr	ibution and Abundance
Project start date: 1/1/2001	Project end date: 9/30/2002	Sites located along randomly selected grids are sampled for presence of bird species. Data collected
Contact: McIntyre, Carol	Format: MSExcel	over 4-year period are analyzed for temporal and spatial chnages in the population.
North American Migration	Count	
Project start date: 1/1/1994	Project end date: 9/30/2002	In one day all birds seen or heard are recorded by species and count while birdwatching (walking,
Contact: Paynter, Jon	Format: Paper	driving, etc) along with number of participants and miles surveyed.
Trumpeter Swan Monitorin	g	
Project start date: 1/1/1968	Project end date: 9/30/2002	Aerial surveys conducted every five years to determine abundance and productivity of Trumpeter
Contact: Paynter, Jon	Format: Paper	Swans (Cygnus buccinator) throughout state of Alaska.
Waterfowl Inventory and M	onitoring	
Project start date: 19790601	Project end date: 20020601	Aerial surveys conducted to determine habitat, abundance, and productivity of trumpeter swans in
Contact: Paynter, Jon	Format: Paper	relation to facility development on the south side of the park. 1995, 1996 one day incidental surveys. Annual surveys proposed 1997.

Title		Abstract
Other		
Bibliographic Database in	Procite	
Project start date:	Project end date:	Bibliographic library that includes author, title, date of publication, keywords, and abstracts. Database
Contact: Paynter, Jon	Format: Procite	only includes cultural and natural information relevant to Denali NP & P including final reports, mining reports, Masters' and PhD theses.
Denali NP&P Museum Cata	aloging Program	
Project start date: 1/1/1985	Project end date: 12/2/2002	Denali's museum cataloguing program lists natural history specimens including an herbarium, geology
Contact: Paynter, Jon	Format: ANCS+ - Automated National Cataloging System	and paleontology specimens, cultural artifacts, oral histories, archives, administrative files, research papers, photos, maps, and rare books.
Investigators Annual Repo	orts	
Project start date: 1/1/1989	Project end date: 12/30/2002	Investigators Annual Reports organized since 1989 in a Paradox database. Information includes
Contact: Paynter, Jon	Format: Paradox	subject, report year, project title, investigators, objectives, findings, and list of reports produced.
Paleontology		
Database of Paleontologic	al Studies	
Project start date:	Project end date:	Data pertaining to Park-wide paleontological studies including bibliographic references, identification
Contact: Paynter, Jon	Format: Microsoft Access	and taxonomy of collected fossils with age assignment and spatial, stratigraphic, and geologic descriptions of fossil-bearing localities. Location: Park-wide
Recreation/ Aesthetics		
Savage Check Station Stat	tistics	
Project start date: 1/1/1996	Project end date: 9/30/1997	A record of all traffic that passes through Savage Check Station; includes data from NPS periods of
Contact: Paynter, Jon	Format: Microsoft Excel	operation and data from Concessions when Savage Check Station is closed. Data records date, vehicle type, number of passengers, destination, types of permits. Location is: west of Savage Check Station.
Trails and Nodes Monitoria	ng Program	
Project start date: 1/1/1995	Project end date: 9/1/1997	Development of comprehensive trails and nodes monitoring program for Denali NP&P. Consistenly
Contact: Paynter, Jon	Format: Microsoft Access, Paper, Photos	assesses current trail and node impact status, tracks conditions at problem/sensitive sites, surveys unknown impact areas, integrates historic trails. Project location is the Park-wide road corridor.

Title		Abstract
Wonder Lake Monitoring F	Program - 1997	
Project start date: Contact: Paynter, Jon	Project end date: Format: paper, Excel, photos	A study requested in Denali Front country Plan to monitor visitor activities- hiking, canoeing, bicycling, wildlife viewing, guided (by lodges) or not, in Wonder Lake area. Recorded with photos existing trail conditions and resource impacts.
Restoration - Cultural		
Cabin Inventory		
Project start date: 1/1/1982 Contact: Paynter, Jon	Project end date: 12/2/2002 Format: paper, photos, Access, GIS layer	Data collection of some 238 cabins and ruins in relation to fire protection status. Comprises historic, subsistence, patrol, and mining cabins with corresponding name, #'s, description, significance, historic references, location, and fire status.
Soil Science		
Chloride, Salinity, Conduc	tivity and pH of Roadbed and Ro	padside Soils
Project start date: Contact: Paynter, Jon	Project end date: Format: MS Excel, paper	Testing for chlorice, salinity, conductivity, pH of roadbed and roadside soils adjacent to road before and after road is treated with calcium chloride (dust suppressant).
Chloride, Salinity, Conduc	tivity, pH of Red Dog Haul Road	
Project start date: Contact: Paynter, Jon	Project end date: Format: Paper	Chloride, salinity, conductivity, and pH of soils measured in a transect perpendicular to a road treated with calcium chloride as a dust suppressent.
LTEM - Development of Sc	oils Monitoring Protocol	
Project start date: 1/1/1992 Contact: Paynter, Jon	Project end date: 9/30/2002 Format: Paper	Objectives of the proposal are to characterize the soil environment of Rock Creek watershed; to set up a pilot project to interphase the atmospheric and soil environmental parameters with vegetative associations to establish baseline database.
LTEM - Soil/Water Chemic	al Relationships in Rock Creek	
Project start date: 5/9/1994 Contact: Paynter, Jon	Project end date: 5/9/1996 Format: Paper	Purpose of study is to quantify the movement of nutrients through the soil-plant-water system of the Rock Creek watershed. Soil water flow rate, soil water chem., stream water flow rate, stream water chem., stream water productivity are measured.

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Title		Abstract
LTEM - Soils Monitoring		
Project start date: 6/15/1993 Contact: Adema, Guy	Project end date: 9/30/2003 Format: Paper, GIS layer	The initial soils study in the Rock Creek watershed was conducted by the SCS. This study consisted of two elements: (1) a baseline geographic inventory of existing soils and accessory properties across the Rock Creek watershed, and (2) detailed soil descriptions and characterizations of soil at four individual sites.
		The second component of the soil monitoring plan involved the establishment of long-term monitoring sites. Four sites were selected for long-term soils monitoring in the Rock Creek watershed.
		Finally, a parkwide soils inventory was conducted by NRCS. Soil delineations were made using stereoscopic photo-interpretation of color infrared photography.
Water Quality		
Chloride, Salinity, Conduct	tivity and pH of Road Runoff and	Ditch Water
Project start date: 6/1/1996 Contact: Paynter, Jon	Project end date: 8/1/1996 Format: paper, Microsoft Excel	Testing for chloride, salinity, conductivity, and pH of road runoff and roadside ditch water before and after road is treated with calcium chloride (dust suppressant).
LTEM - Monitoring of selec	ted watersheds	
Project start date: 1/1/1994 Contact: Paynter, Jon	Project end date: 1/1/1996 Format: paper, Excel, dBase, Microsoft Access	Continued field and laboratory sampling in selected watersheds throughout the park and outside in areas of potential concern due to proposed development. Instruments sample rivers from several hours to 2-3 days.
LTEM - Physical and Chem	ical status of surface waters	
Project start date: 1/1/1994 Contact: Paynter, Jon	Project end date: 12/1/1996 Format: MS Access 2.0 converted to Access97	This dataset is from an interdepartmental/interagency (USDA Forest Service/USDI National Park Service) cooperative study performed in 1994-1996 in Denali National Park and Preserve. Water samples were collected throughout the Park and Preserve from May through October 1994 -1996 to develop a set of baseline data describing the physical and chemical conditions of surface waters as part of the Long Term Environmental Monitoring program at Denali National Park and Preserve. Access (version 2.0)
LTEM - Stream Channel Mo	orphometry and Water Chemistry	1
Project start date: 6/1/1992 Contact: Adema, Guy	Project end date: 7/15/1997 Format: MS Access 97	The aquatic systems component of the Denali LTEM program focused on two aspects of aquatic systems monitoring: water chemistry and stream channel morphometry. Water quality monitoring is often utilized as a method of ecosystem trend detection for wilderness areas. Characterizing surface water composition provides links to local geology, morphology, nutrient status, and biological productivity. The program was developed to monitor for such geomorphic changes using measurements of channel geometry.

Title		Abstract
LTEM - Stream Water Qual	lity Data	
Project start date: 1/1/1992	Project end date: 9/2/2002	Data describing water chemistry for LTEM site. Major ions, nutrients, chlorophyll A, water temperature,
Contact: Paynter, Jon	Format: paper, dBase, ASCII	and others. Related LTEM data: aquatic macroinvertebrates, surface water, hydrology.
Physical and Chemical Ch	aracterization of Streams and Ri	vers within DENA
Project start date: 1/1/1994	Project end date: 12/30/1997	Water samples were collected from streams and rivers throughout the park to develop a set of baseline
Contact: Paynter, Jon	Format: Paper, MS Access	data describing the physical and chemical conditions of surface waters. Analyses were done both in the field and laboratory.
Wildlife Management		
1995 Ninety minute wildlife	e behavioral observations	
Project start date:	Project end date:	Observations of dall sheep, moose, caribou, grizzly bear and wolves were made along the Denali Park
Contact: Paynter, Jon	Format: paper, Microsoft Access	road corridor. Observations were the same as the five minute observations made in 1995 but these were made for a 90 minute duration.
Automated Park Road Traf	ffic Counting	
Project start date: 5/1/1995	Project end date: 9/30/1997	Infared beam counters set up at six locations along Denali Park road to record traffic by hour and date.
Contact: Paynter, Jon	Format: 1995, 1996 Microsoft Access, ASCII	
Bear Information Managen	ment System (BIMS)	
Project start date: 1/1/1979	Project end date: 9/30/2002	BIMS data includes date/time, group number and type, visitor activity, location, description of bears,
Contact: Paynter, Jon	Format: Paradox, paper, UTMs	surrounding vegetation, interactions of bear/humans, distance to bear, if bear got food, property damage. Mgmt evaluates encounter and bear behavior.
Bus Driver Trip Logs - 199	5	
Project start date: 5/1/1995	Project end date: 9/15/1995	Data for 1995 bus driver trip logs; include species, sex, age, number, location, vegetation, distance,
Contact: Paynter, Jon	Format:	for sightings of; moose, caribou, dall sheep, grizzly bear, fox, lynx, wolf, wolverine
Bus Driver Trip Logs - 199	6	
Project start date: 1/1/1996	Project end date:	Data for 1996 bus driver trip logs included recording species, sex, age, #, location, vegetation, distance
Contact: Paynter, Jon	Format: Microsoft Access	of moose, caribou, Dall sheep, grizzly bear, fox, lynx, wolf & wolverine. Statistics for passengers on and off bus was also recorded.

Title		Abstract
Bus Driver Trip Logs - 1997	,	
Project start date: Contact: Paynter, Jon	Project end date: Format: Paper	Data for 1997 bus driver trip logs includes recording species, sex, age, number, location, vegetation, distance of moose, caribou, Dall sheep, grizzly bear, fox, lynx, wolf, wolverine.
Distribution and Abundance	e of Arctic Ground Squirrels an	d Willow Ptarmigan
Project start date: 5/1/1996	Project end date: 9/30/1997	Location and number of all arctic ground squirrels and willow ptarmigans seen along the Denali Park
Contact: Paynter, Jon	Format: Paper	road from headquarters to Eielson Visitor Center. Data collected only in one direction during behavioral observation trips.
Field Notes for Park Road U	Jse/Wildlife Interactions: Behav	rioral Observe
Project start date: 1/1/1995	Project end date: 12/30/1997	Records were kept of all species seen during behavioral observation trips along the Denali Park road.
Contact: Paynter, Jon	Format: Paradox for 1995 data; Paper for 1996-1997	, ,
LTEM - Caribou Survey		
Project start date: 1/1/1986 Contact: Adams, Layne	Project end date: 12/30/2002 Format: dBase	Since its inception in 1986, the goal of the wolf/prey research at Denali has been to monitor wolf and caribou populations in sufficient detail to determine the status and trends of these species while understanding interrelationships of the Denali wolf/prey system. The goal of this portion of the work is to determine population trends, calf production and survival, and adult survival in the Denali Caribou Herd.
LTEM - Wolf Population Mo	nitoring	
Project start date: 1/1/1990	Project end date: 12/30/2002	Since its inception in 1986, the goal of the wolf/prey research at Denali has been to monitor wolf and
Contact: Adams, Layne	Format: dBase	caribou populations in sufficient detail to determine the status and trends of these species while understanding interrelationships of the Denali wolf/prey system.
Park Road Use / Wildlife Int	eraction Monitoring - A Pilot ef	fort 1995
Project start date: 4/1/1995	Project end date: 10/1/1995	Behavioral observation of Dall sheep, grizzly bear, caribou, moose, and wolves were make along the
Contact: Paynter, Jon	Format: Paper, Microsoft Access database, disks	Denali Park road corridor. Observations were within 100 meters of either side of the Denali Park road and were condected for five minutes.
Park Road Use / Wildlife Int	eractions: Behavioral Observa	tions and Monitoring
Project start date: 1/1/1996	Project end date: 12/1/1997	Fifteen minute behavioral observations of Dall sheep, moose, caribou, grizzly bear, and wolves were

Printout date: 1/5/2004

Title		Abstract
Road Wildlife Study		
Project start date:	Project end date:	Fifteen minute behavioral observations of Dall Sheep, moose, caribou, grizzly bear, and wolves were made within 500 meter of the Denali Park road between headdquarters and Eielson Visitor Center
Contact: Paynter, Jon	Format: Microsoft Access, Paper	